

The Economic Values of the California Delta's Agricultural Output

Estimates of Gross Value of Agricultural Production, Net Crop Revenue, And Contributions to Fixed Costs

Summary Tables from the Delta Net Crop Revenue Model

A Draft Paper by Jim Rich, DWR, DPLA

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There were an average of 405,899 acres of harvested or grazed, irrigated crop acres in the Delta during the 1998 – 2004 period. That represents 31.7 percent of the entire crop acreage in the six counties which contain the Delta. This paper contains summary tables from the author's Delta Net Crop Revenue Model, which produced various estimates of the average annual economic value of the crop output of those acres during the 1998 – 2004 period. The reader may also be interested in the author's 9/21/06 draft paper, *The Value of the Agricultural Output of the California Delta*, which examines the Delta's harvested or grazed acreage, and the gross value of its agricultural output, including flowers and nursery products, and animal agriculture.

The following tables come from Pages W and X of the Excel spreadsheet model, Delta NCRM 1006j.xls, by Jim Rich, of DWR. For more information about that model and how it was developed, please refer to the accompanying 20-page, 10/24/06 draft paper by the author, *A Detailed Description of the Delta Net Crop Revenue Model*.

1998-2004 Weighted Average Net Crop Revenue per Acre - Field Crops (in 2004 \$s)							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	-116	-75	-38	-75	-52	-51
Sorghum, Grain	-	-	-329	-	-	-	-329
Barley*	-	-	-48	-	-66	-	-54
Rice	-	-	161	-209	-	15	-64
Corn	-	-167	-138	-109	-118	-102	-126
Corn Silage	-	-	-30	-16	-	-	-20
Dry Beans	-	-	-66	-22	-	-	-25
Safflower	-	-25	-28	71	-17	-26	-7
Alfalfa Hay	-55	-185	-60	39	-96	-131	-13
Oat Hay	-	-	-	-	-	-78	-78
Grain Hay	-65	-109	-39	-25	-65	-86	-49
Non-Corn Silage	-	-	-	-3	-	-	-3
Sudan Grass*	-	-	-	-	85	-	85
Rye Grass*	-	-	-	-	-38	-	-38
Irrigated Pasture	-80	-72	-69	-61	-97	-100	-84
Misc. Field**	-	-101	-60	-39	-116	-131	-106
Seed Crops**	-	-	-140	-258	-169	-81	-127

* Due to inadequate crop budgets, net crop revenue was estimated using gross crop revenue for these crops, plus net crop revenue estimates for similar crops.

Table 1

As expected, the large majority of the estimates of net crop revenue for the important field crops grown in the Delta portions of the six counties have negative values. This occurs because, except for rice in Sacramento County, gross revenue estimates for all of the “program crops” (wheat, sorghum, barley, rice, and corn) exclude government crop support payments. Also, the output of many of the acres of the forage crops (silage, hay, pasture) are not sold on the market, but are consumed by the growers in the livestock production process. As long as the overall livestock operation is profitable, the farmer/rancher is satisfied, even if, on paper, the crop is not profitable. A few of the above field crops are grown mainly for rotational benefits. Finally, anecdotal evidence, plus the county acreage data, indicates that many of the above field crops did not do well during the 1998 – 2004 period, which explains why their harvested or grazed acres fell substantially in recent years. Remember, net crop revenue equals gross crop revenue, minus all costs, cash and non-cash, short-term and long-term, real costs and paper costs.

The next table looks at a better measure of the short-term profitability of field crops – contributions to fixed costs, or gross crop revenue minus variable production costs:

1998-2004 Average Contribution to Fixed Costs per Acre - Field Crops (in 2004 \$s)							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	25	67	103	67	92	90
Sorghum, Grain	-	-	-124	-	-	-	-124
Barley*	-	-	43	-	59	-	48
Rice	-	-	486	115	-	339	261
Corn	-	21	46	75	68	83	59
Corn Silage	-	-	170	184	-	-	180
Dry Beans	-	-	156	200	-	-	197
Safflower	-	136	126	234	137	135	150
Alfalfa Hay	264	116	249	359	211	200	305
Oat Hay	-	-	-	-	-	17	17
Grain Hay	41	-4	68	83	41	18	58
Non-Corn Silage	-	-	-	83	-	-	83
Sudan Grass*	-	-	-	-	204	-	204
Rye Grass*	-	-	-	-	17	-	17
Irrigated Pasture	131	140	143	148	115	110	127
Misc. Field*	-	65	117	239	258	315	233
Seed Crops*	-	-	234	727	202	319	356
* Due to inadequate crop budgets, CTFC was estimated using gross crop revenue for these crops, plus CTFC estimates for similar crops.							Table 2

From the above table we see that except for grain sorghum in Sacramento County (CTFC = -124) and grain hay in Contra Costa County (CTFC = -4), all of the county/crop combinations have healthy, positive estimates of contribution to fixed costs for the 1998 - 2004. (We had to use five old, out-of-date crop budgets to derive the sorghum estimate, which explains its large negative value.) So even if the farmer is losing money on paper when all the costs are taken into account (that is, the crop produces a negative net crop

revenue), the farmer may continue to grow at least some acres of that crop, year-after-year, until he or she finds a more profitable crop, so long as the crop's gross revenues exceed its variable costs (that is, its CTFC is positive).

The estimates in the next table are from the draft DWR paper, *The Value of the Agricultural Output of the California Delta* (9/21/06, by Jim Rich). That paper was based on an Excel spreadsheet model of the California Delta. The following estimates are the values for average gross crop revenue per acre for the 1998 – 2004 period, expressed in 2004 dollars:

1998-2004 Average Gross Crop Revenue per Acre - Field Crops (in 2004 \$s)						Table 3	10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	197	248	289	249	275	275
Sorghum, Grain	-	-	192	-	-	-	192
Barley	-	-	159	-	219	-	179
Rice	-	-	1,130	751	-	966	896
Corn	-	426	470	500	488	495	481
Corn Silage	-	-	597	635	-	-	624
Dry Beans	-	-	609	681	-	-	677
Safflower	-	319	298	426	308	321	327
Alfalfa Hay	711	579	737	861	694	690	800
Oat Hay	-	-	-	-	-	215	215
Grain Hay	188	197	269	328	205	236	284
Non-Corn Silage	-	-	-	285	-	-	285
Sudan Grass	-	-	-	-	541	-	541
Rye Grass	-	-	-	-	220	-	299
Irrigated Pasture	107	163	164	170	137	131	149
Misc. Field	-	281	392	394	840	1,054	739
Seed Crops	-	-	889	2,618	774	1,009	1,475

The following table shows the estimates of average harvested field crop acres during the 1998-2004 period, for the Delta portions within each of the six counties, and for the entire Delta. The estimates come from *The Value of the Agricultural Output of the California Delta* (9/21/06, by Jim Rich).

1998-2004 Estimated Acres - Field Crops							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	1,710	4,500	24,152	4,105	5,500	39,967
Sorghum, Grain	-	-	900	-	-	-	900
Barley	-	-	1,000	-	478	-	1,478
Rice	-	-	1,000	2,304	-	1,396	4,700
Corn	-	6,284	20,000	26,979	2,380	1,500	57,143
Corn Silage	60	-	10,000	27,306	-	-	37,366
Dry Beans	-	-	550	8,155	-	-	8,705
Safflower	-	936	5,000	2,872	6,534	2,000	17,342
Alfalfa Hay	770	3,520	8,500	44,973	5,543	7,100	70,406
Oat Hay	-	-	-	-	-	1,000	1,000
Grain Hay	700	1,140	1,200	3,120	476	476	7,112
Non-Corn Silage	-	-	-	3,232	-	-	3,232
Sudan Grass	-	-	-	-	207	-	207
Rye Grass	-	-	-	-	158	-	158
Irrigated Pasture	200	3,640	4,500	4,050	9,956	5,000	27,346
Misc. Field	-	1,749	765	1,101	1,007	4,261	8,883
Seed Crops	-	-	200	982	458	1,471	3,111
Total	1,730	18,979	58,115	149,226	31,302	29,704	289,056

The following table is the same as Table 1, above, except that it displays net crop revenues for each crop as average totals, and not as period average \$/acre values:

1998-2004 Average Annual Total Net Crop Revenue, Field Crops (2004 \$s)							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	-198,105	-337,095	-925,589	-308,477	-286,586	-2,055,852
Sorghum, Grain	-	-	-296,129	-	-	-	-296,129
Barley	-	-	-47,987	-	-31,649	-	-79,636
Rice	-	-	161,087	-482,322	-	20,503	-300,732
Corn	-	-1,047,033	-2,763,721	-2,931,891	-281,222	-153,494	-7,177,360
Corn Silage	-	-	-304,672	-446,026	-	-	-750,698
Dry Beans	-	-	-36,467	-176,861	-	-	-213,327
Safflower	-	-23,474	-141,583	205,239	-110,086	-52,518	-122,422
Alfalfa Hay	-42,629	-650,545	-508,089	1,738,023	-534,763	-932,535	-930,538
Oat Hay	-	-	-	-	-	-78,383	-78,383
Grain Hay	-45,338	-124,419	-46,881	-77,705	-30,830	-40,917	-366,089
Non-Corn Silage	-	-	-	-10,183	-	-	-10,183
Sudan Grass	-	-	-	-	17,595	-	17,595
Rye Grass	-	-	-	-	-5,986	-	-5,986
Irrigated Pasture	-15,951	-263,175	-309,130	-248,697	-961,480	-499,041	-2,297,475
Misc. Field	-	-176,133	-46,075	-42,672	-116,701	-560,100	-941,681
Seed Crops	-	-	-28,020	-252,896	-77,511	-119,771	-478,198
Total	-103,918	-2,482,884	-4,704,762	-3,651,580	-2,441,109	-2,702,843	-16,087,097

The following table is the same as Table 2, above, except that it displays contribution to fixed costs for each crop as average totals, and not as period average \$/acre values:

1998-2004 Average Annual Total Contributions to Fixed Costs - Field Crops (in 2004 \$s) T6							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	43,536	303,741	2,482,210	273,632	504,992	3,608,111
Sorghum, Grain	-	-	-111,525	-	-	-	-111,525
Barley	-	-	43,239	-	28,074	-	71,313
Rice	-	-	486,160	265,530	-	473,629	1,225,318
Corn	-	129,731	921,233	2,031,271	161,338	125,145	3,368,718
Corn Silage	-	-	1,696,290	5,026,817	-	-	6,723,107
Dry Beans	-	-	85,989	1,627,902	-	-	1,713,890
Safflower	-	127,160	629,560	672,166	894,552	270,974	2,594,412
Alfalfa Hay	203,576	408,643	2,118,289	16,161,544	1,167,346	1,421,838	21,481,236
Oat Hay	-	-	-	-	-	16,829	16,829
Grain Hay	28,864	-4,806	81,817	257,453	19,628	8,785	391,741
Non-Corn Silage	-	-	-	268,421	-	-	268,421
Sudan Grass	-	-	-	-	42,127	-	42,127
Rye Grass	-	-	-	-	2,721	-	2,721
Irrigated Pasture	26,237	509,445	642,003	600,577	1,146,174	549,446	3,473,883
Misc. Field	-	113,394	89,616	263,256	259,615	1,342,969	2,068,849
Seed Crops	-	-	46,790	713,553	92,578	468,968	1,321,889
Total	258,678	1,327,101	7,033,203	30,370,699	4,087,786	5,183,573	48,261,040

The following table is the same as Table 3, above, except that it displays gross crop revenues for each crop as average totals, and not as period average \$/acre values:

1998-2004 Average Annual Total Gross Crop Revenue - Field Crops (in 2004 \$s)						Table 7	10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Wheat	-	336,311	1,116,928	6,988,686	1,020,330	1,511,217	10,973,472
Sorghum, Grain	-	-	172,980	-	-	-	172,980
Barley	-	-	159,000	-	104,682	-	263,682
Rice	-	-	1,130,496	1,730,551	-	1,348,591	4,209,637
Corn	-	2,673,972	9,403,220	13,486,416	1,162,089	743,032	27,468,730
Corn Silage	-	-	5,969,436	17,327,083	-	-	23,296,520
Dry Beans	-	-	334,950	5,555,323	-	-	5,890,273
Safflower	-	298,865	1,491,746	1,224,543	2,013,215	642,117	5,670,486
Alfalfa Hay	547,097	2,036,738	6,261,249	38,743,450	3,849,213	4,897,633	56,335,380
Oat Hay	-	-	-	-	-	215,000	215,000
Grain Hay	131,600	224,839	322,880	1,023,474	97,580	112,233	1,912,606
Non-Corn Silage	-	-	-	920,758	-	-	920,758
Sudan Grass	-	-	-	-	111,987	-	111,987
Rye Grass	-	-	-	-	34,760	-	34,760
Irrigated Pasture	21,400	592,567	739,281	686,496	1,359,833	655,518	4,055,095
Misc. Field	-	491,469	299,880	433,794	845,880	4,491,094	6,562,117
Seed Crops	-	-	177,800	2,570,876	354,492	1,484,239	4,587,407
Total	700,097	6,654,761	27,579,847	90,691,450	10,954,061	16,100,674	152,680,890

This concludes the summary tables that deal strictly with field crops. The following tables cover the non-field crops. The first one deals with net crop revenue per acre.

1998-2004 Average Net Crop Revenue per Acre - Non-Field Crops (2004 \$s)						Table 8	10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Tomatoes-Proc.	-	148	18	394	100	79	316
Tomatoes-Fresh	-	-	3,243	809	-	-	1,134
Sweet Corn	-	785	-	145	-	-	599
Cucumbers	-	-	-	416	-	-	416
Pumpkins	-	-	492	376	-	-	376
Squash*	-	-	354	-	-	-	354
Watermelon	-	-	-	221	-	-	221
Cantaloupes	-	-	-	249	-	-263	17
Onions	-	-	-	174	-	-	174
Potatoes	-	-	-	306	-	-	306
Asparagus	-	52	-14	36	-	-	34
Misc. Vegetable*	-	392	1,272	277	461	-138	288
Apples	-	-1,425	-1,284	166	-848	-	-533
Apricots	-	-821	-	-1,282	-	-	-1,093
Cherries	-	-	-1,796	-554	-1,175	-	-1,218
Peaches	-	-	-	-1,107	-	-	-1,107
Pears	-	-	-652	-765	-878	-	-660
Almonds	-	-	-	45	-	-	45
Walnuts	-	-566	-	-187	-	-624	-292
Wine Grapes	-	259	241	60	146	287	188
Misc. Fruit & Nut*	-	-1,156	-1,162	-399	-815	-244	-503
Nursery Products*	-	8,198	7,466	3,523	1,598	-500	4,797
* Due to no crop budgets, net crop revenue was estimated using gross crop revenue for these crops, plus net crop revenue estimates for similar crops.							

As expected, the large majority of the estimates of net crop revenue for the important non-field crops grown in the Delta portions of the six counties have positive values, except for the deciduous tree fruit and walnuts. Capital recovery costs for orchards are important “paper costs” for tree fruit and walnut orchards, although there are few such new orchards in the Delta. The inclusion of those costs in the model’s crop budgets is the most important reason for those estimates of negative net crop revenues for the deciduous tree fruit and walnuts.

Many economists consider contributions to fixed costs (equal to gross crop revenue minus variable costs) as a better measure of the short-term profitability or viability of a crop than net crop revenue. And the following table shows that all of the CTFC estimates are positive:

1998-2004 Average Contribution to Fixed Costs per Acre, Non Field Crops (2004 \$s) T9							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Tomatoes-Proc.	-	588	457	826	544	524	751
Tomatoes-Fresh	-	-	3,603	1,169	-	-	1,494
Sweet Corn	-	1,105	-	464	-	-	919
Cucumbers	-	-	-	1,076	-	-	1,076
Pumpkins	-	-	822	706	-	-	706
Squash*	-	-	582	-	-	-	582
Watermelon	-	-	-	585	-	-	585
Cantaloupes	-	-	-	522	-	22	296
Onions	-	-	-	601	-	-	601
Potatoes	-	-	-	595	-	-	595
Asparagus	-	1,034	969	1,015	-	-	1,013
Misc. Vegetable*	-	1,003	1,982	670	2,505	410	845
Apples	-	368	356	1,898	874	-	1,226
Apricots	-	646	-	182	-	-	373
Cherries	-	-	99	1,391	745	-	542
Peaches	-	-	-	183	-	-	183
Pears	-	-	1,008	908	808	-	993
Almonds	-	-	-	1,165	-	-	1,165
Walnuts	-	399	-	861	-	379	736
Wine Grapes	-	2,469	2,432	2,240	2,298	2,413	2,357
Misc. Fruit & Nut*	-	1,759	1,863	1,390	3,456	2,025	1,874
Nursery Products*	-	20,959	11,636	8,521	8,675	1,487	10,481
* Due to no crop budgets, net crop revenue was estimated using gross crop revenue for these crops, plus net crop revenue estimates for similar crops.							

The estimates in the next table are from the draft DWR paper, *The Value of the Agricultural Output of the California Delta* (ibid). The following estimates are the values for average gross crop revenue per acre for the non-field crops for the 1998 – 2004 period, expressed in 2004 dollars:

1998-2004 Average Gross Crop Revenue per Acre - Non-Field Crops (2004 \$s)						Table 10	10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Tomatoes-Proc.	-	2,082	1,774	2,187	1,884	1,846	2,103
Tomatoes-Fresh	-	-	7,245	4,809	-	-	5,135
Sweet Corn	-	3,210	-	2,393	-	-	2,973
Cucumbers	-	-	-	3,124	-	-	3,124
Pumpkins	-	-	2,045	2,734	-	-	2,638
Squash	-	-	4,375	-	-	-	4,375
Watermelon	-	-	-	4,327	-	-	4,327
Cantaloupes	-	-	-	3,146	-	2,039	2,645
Onions	-	-	-	5,938	-	-	5,938
Potatoes	-	-	-	4,353	-	-	4,353
Asparagus	-	2,577	2,412	2,577	-	-	2,566
Misc. Vegetable	-	2,714	5,583	3,153	8,671	2,913	3,469
Apples	-	3,202	3,765	7,538	3,202	-	5,632
Apricots	-	2,338	-	2,481	-	-	2,422
Cherries	-	-	3,239	5,337	2,859	-	3,940
Peaches	-	-	-	5,199	-	-	5,199
Pears	-	-	4,638	4,065	1,964	-	4,504
Almonds	-	-	-	2,585	-	-	2,585
Walnuts	-	1,323	-	1,887	-	1,329	1,736
Wine Grapes	-	4,199	4,285	3,942	4,019	4,335	4,163
Misc. Fruit & Nut	-	5,011	6,401	5,084	6,658	4,108	4,997
Nursery Products	-	56,703	32,771	40,116	30,024	10,569	35,887

The following table shows the estimates of average harvested acres of non-field crops in the Delta portions of the six counties, plus the entire Delta, for the 1998-2004 period. The estimates come from the earlier spreadsheet and draft paper dealing with Delta gross crop revenues.

1998-2004 Average Annual Acres - Non Field Crops				Table 11			10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Tomatoes-Proc.	-	110	3,500	20,613	481	1,900	26,604
Tomatoes-Fresh	-	-	700	4,540	-	-	5,240
Sweet Corn	-	3,300	-	1,350	-	-	4,650
Cucumbers	-	-	-	1,559	-	-	1,559
Pumpkins	-	-	250	1,535	-	-	1,785
Squash	-	-	80	-	-	-	80
Watermelon	-	-	-	1,050	-	-	1,050
Cantaloupes	-	-	-	220	-	182	402
Onions	-	-	-	305	-	-	305
Potatoes	-	-	-	2,509	-	-	2,509
Asparagus	-	1,200	1,492	20,235	-	-	22,927
Misc. Vegetable	-	969	200	3,826	372	750	6,117
Apples	-	200	350	255	142	-	947
Apricots	-	490	-	700	-	-	1,190
Cherries	-	-	270	165	38	-	473
Peaches	-	-	-	109	-	-	109
Pears	-	-	6,100	32	316	-	6,448
Almonds	-	-	-	1,788	-	-	1,788
Walnuts	-	780	-	2,673	-	200	3,653
Wine Grapes	-	1,560	8,000	9,108	1,593	7,000	27,261
Misc. Fruit & Nut	-	77	80	410	98	350	1,015
Nursery Products	-	109	421	390	229	50	1,199
Total	-	8,795	21,443	73,372	3,269	10,432	117,311

The following table is the same as Table 8, above, except that it displays net crop revenues for each crop as average totals, and not as period average \$/acre values:

1998-2004 Average Annual Total Net Crop Revenues - Non-Field Crops (2004 \$s)							Table 12	10/10/2006
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta	
Tomatoes-Proc.	-	16,267	63,541	8,113,315	48,236	151,028	8,392,387	
Tomatoes-Fresh	-	-	2,269,800	3,673,284	-	-	5,943,084	
Sweet Corn	-	2,590,493	-	195,530	-	-	2,786,023	
Cucumbers	-	-	-	648,099	-	-	648,099	
Pumpkins	-	-	123,091	577,626	-	-	700,717	
Squash	-	-	28,317	-	-	-	28,317	
Watermelon	-	-	-	232,233	-	-	232,233	
Cantaloupes	-	-	-	54,767	-	-47,947	6,819	
Onions	-	-	-	52,999	-	-	52,999	
Potatoes	-	-	-	767,662	-	-	767,662	
Asparagus	-	61,936	-20,622	727,542	-	-	768,855	
Misc. Vegetable	-	380,229	254,393	1,059,401	171,652	-103,444	1,762,232	
Apples	-	-285,021	-449,406	42,281	-120,383	-	-812,529	
Apricots	-	-402,435	-	-897,733	-	-	-1,300,169	
Cherries	-	-	-484,961	-91,380	-44,649	-	-620,991	
Peaches	-	-	-	-120,684	-	-	-120,684	
Pears	-	-	-3,977,361	-24,482	-277,484	-	-4,279,328	
Almonds	-	-	-	81,158	-	-	81,158	
Walnuts	-	-441,191	-	-500,849	-	-124,866	-1,066,906	
Wine Grapes	-	404,802	1,924,099	547,989	232,229	2,012,291	5,121,410	
Misc. Fruit & Nut	-	-89,031	-92,954	-163,606	-79,861	-85,504	-510,956	
Nursery Products	-	893,602	3,143,256	1,373,959	365,882	-25,021	5,751,677	
Total	-	3,129,650	2,781,193	16,349,111	295,620	1,776,538	24,332,110	

The following table is the same as Table 9, above, except that it displays contributions to fixed costs for each crop as average totals, and not as period average \$/acre values:

1998-2004 Average Annual Total Contributions to Fixed Costs, Non Field Crops (2004 \$s) T13							10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Tomatoes-Proc.	-	64,697	1,601,068	17,034,406	261,888	996,228	19,958,288
Tomatoes-Fresh	-	-	2,522,384	5,308,609	-	-	7,830,994
Sweet Corn	-	3,644,975	-	626,910	-	-	4,271,885
Cucumbers	-	-	-	1,676,960	-	-	1,676,960
Pumpkins	-	-	205,474	1,083,453	-	-	1,288,926
Squash	-	-	46,562	-	-	-	46,562
Watermelon	-	-	-	613,858	-	-	613,858
Cantaloupes	-	-	-	114,795	-	4,044	118,838
Onions	-	-	-	183,159	-	-	183,159
Potatoes	-	-	-	1,492,891	-	-	1,492,891
Asparagus	-	1,241,115	1,445,491	20,548,178	-	-	23,234,784
Misc. Vegetable	-	972,058	396,455	2,562,276	931,948	307,335	5,170,072
Apples	-	73,698	124,525	484,030	124,128	-	806,381
Apricots	-	316,401	-	127,077	-	-	443,478
Cherries	-	-	26,820	229,508	28,316	-	284,644
Peaches	-	-	-	19,965	-	-	19,965
Pears	-	-	6,150,237	29,055	255,235	-	6,434,527
Almonds	-	-	-	2,083,003	-	-	2,083,003
Walnuts	-	311,586	-	2,300,979	-	75,874	2,688,439
Wine Grapes	-	3,851,808	19,452,959	20,403,588	3,660,522	16,888,189	64,257,065
Misc. Fruit & Nut	-	135,429	149,018	569,877	338,665	708,679	1,901,668
Nursery Products	-	2,284,499	4,898,561	3,323,068	1,986,478	74,339	12,566,944
Total	-	12,896,266	37,019,554	80,815,644	7,587,181	19,054,687	157,373,333

The following table is the same as Table 10, above, except that it displays gross crop revenues for each crop as average totals, and not as period average \$/acre values:

1998-2004 Average Annual Total Gross Crop Revenue - Non-Field Crops (2004 \$s)						Table 14	10/10/06
Crop	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Tomatoes-Proc.	-	229,020	6,207,500	45,086,118	906,435	3,507,519	55,936,592
Tomatoes-Fresh	-	-	5,071,304	21,833,839	-	-	26,905,143
Sweet Corn	-	10,592,612	-	3,231,118	-	-	13,823,730
Cucumbers	-	-	-	4,870,263	-	-	4,870,263
Pumpkins	-	-	511,132	4,196,899	-	-	4,708,031
Squash	-	-	350,000	-	-	-	350,000
Watermelon	-	-	-	4,543,143	-	-	4,543,143
Cantaloupes	-	-	-	692,031	-	371,130	1,063,161
Onions	-	-	-	1,811,090	-	-	1,811,090
Potatoes	-	-	-	10,922,507	-	-	10,922,507
Asparagus	-	3,091,876	3,598,484	52,136,760	-	-	58,827,120
Misc. Vegetable	-	2,629,866	1,116,600	12,063,378	3,225,612	2,184,750	21,220,206
Apples	-	640,433	1,317,750	1,922,115	454,684	-	4,334,982
Apricots	-	1,145,667	-	1,736,996	-	-	2,882,663
Cherries	-	-	874,538	880,537	108,642	-	1,863,717
Peaches	-	-	-	566,742	-	-	566,742
Pears	-	-	28,291,186	130,080	620,624	-	29,041,890
Almonds	-	-	-	4,621,128	-	-	4,621,128
Walnuts	-	1,031,618	-	5,042,909	-	265,806	6,340,333
Wine Grapes	-	6,551,200	34,280,310	35,903,554	6,402,790	30,348,096	113,485,950
Misc. Fruit & Nut	-	385,847	512,080	2,084,440	652,484	1,437,800	5,072,651
Nursery Products	-	6,180,627	13,796,591	15,645,240	6,875,496	528,450	43,026,404
Total	-	32,478,766	95,927,475	229,920,887	19,246,766	38,643,550	416,217,444

Table 15, below, shows average annual totals for net revenues, contributions to fixed costs, and gross revenues, for the Delta portion of each of the six counties, plus the entire Delta, for field crops, non-field crops, and all crops, for the 1998-2006 period, in 2004 dollars:

Estimates for all Delta crops, in 2004 \$s, averages for 1998 - 2004					Table 15		10/10/06
	Alameda	Contra Costa	Sacramento	San Joaquin	Solano	Yolo	Delta
Net Revenue							
Field	-103,918	-2,482,884	-4,704,762	-3,651,580	-2,441,109	-2,702,843	-16,087,097
Non-Field	-	3,129,650	2,781,193	16,349,111	295,620	1,776,538	24,332,110
Total	-103,918	646,765	-1,923,569	12,697,530	-2,145,490	-926,306	8,245,013
CTFC							
Field	258,678	1,327,101	7,033,203	30,370,699	4,087,786	5,183,573	48,261,040
Non-Field	-	12,896,266	37,019,554	80,815,644	7,587,181	19,054,687	157,373,333
Total	258,678	14,223,367	44,052,757	111,186,344	11,674,966	24,238,261	205,634,373
Gross Revenue							
Field	700,097	6,654,761	27,579,847	90,691,450	10,954,061	16,100,674	152,680,890
Non-Field	-	12,896,266	37,019,554	80,815,644	7,587,181	19,054,687	416,217,444
Total	700,097	19,551,027	64,599,402	171,507,094	18,541,242	35,155,361	568,898,334

To convert any of the dollar values in this document into 2005 dollars, from their 2004 dollars, just multiply those values by 1.0276.

In conclusion, the Delta Net Crop Revenue Model's output reveals that, expressed in 2004 dollars, California's Delta was home to crops which produced, on average each year during the 1998 – 2004 period, about \$8.2 million in net crop revenue, \$205.6 million in contributions to fixed costs, and \$568.9 million in gross crop value. The last number is only 0.2 percent (two-tenths of one percent) greater than the estimate of \$567.6 million for the average annual gross value of the Delta's crops for the 1998-2004 period that is contained in the author's 9/21/06 draft paper, *The Value of the Agricultural Output of the California Delta*. The difference is due largely to different methods of handling the Delta's minor crops.

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